



Coating: Clear PU high-gloss coating on most types of wood

With the majority of PUR high-gloss coatings on porous woods such as mahogany, the coating tends to break down after some time. In order to prevent this and at the same time preserve the brilliance of the stain, it is vitally important to select the right primers and an appropriate technique.

In comprehensive series of internal tests, we have identified both the most favourable primers and the most effective techniques according to the best technology available currently. The addition of thinner should be adjusted according to both the application options available to the user and the substrate material. When coating three-dimensional workpieces, please identify the application quantities and the necessary addition of solvent by apply a test coat.

Warning: The application time of the primers is 30 to maximum 60 minutes. We recommend working using 2 component spraying equipment.

Materials required:

- PU Isolating primer DG 572-1
mixing ratio (by volume) 2 : 1 with PU Hardener DR 440
PU Thinner DV 4994
- PU Basecoat DG 468-3
mixing ratio (by volume) 1 : 3 with PU Hardener DR 438
PU Thinner DV 4935 / DV 4981
- PU Brilliant lacquer DU 449
mixing ratio (by volume) 2 : 1 with PU Hardener DR 404
PU Thinner DV 4935 / DV 4981
or
- FANTASTIC-BRILLANT DU 48799
mixing ratio (by volume) 4 : 1 with PU Hardener DR 4071
PU Thinner DV 4935
- Sunscreen concentrate SUN-EX ZD 9501 (add at most 4 % in relation to the base lacquer)

Technique on dark woods:

Pre-treating the wood:

- Graduated raw-wood sanding with grain 150 / 180

Insulating:

- Prime with two wet-on-wet coats of 120 - 200 g/m² PU Isolating primer DG 572-1
(20 minutes intermediate drying)
mixing ratio (by volume) 2 : 1 with PU Hardener DR 440
+ if necessary 5 – 10 % PU Thinner DV 4994, depending on the lacquer/hardener mixture
- Dry for at least 2 hours / sand with grain 320

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Priming:

- Prime with three wet-on-wet coats of 150 - 200 g/m² PU Basecoat DG 468-3 (30 minutes intermediate drying)
mixing ratio (by volume) 1 : 3 with PU Hardener DR 438
20 - 30 % PU Thinner DV 4935 (winter) or DV 4981 (summer), depending on the lacquer/hardener mixture
- Dry for 16 - 20 hours / sand with grain 320
- Prime with three wet-on-wet coats of 150 - 200 g/m² PU Basecoat DG 468-3 (30 minutes intermediate drying)
mixing ratio (by volume) 1 : 3 with PU Hardener DR 438
20 - 30 % PU Thinner DV 4935 (winter) or DV 4981 (summer), depending on the lacquer/hardener mixture

Hint:

The number of primer coats and the application quantity are each based on the quality required and the type of wood used.

The more porous the wood, the more primer coats must be applied. Up to 12 coats are possible, each at 150 - 200 g/m²; and up to 6 coats can be applied wet-in-wet each day. Subsequent intermediate drying for at least 16 hours is then necessary, followed by 320 grit sanding. The final primer coat should appear completely smooth even before the final sanding process! Drying after the last coat of primer: 48 hours, graduated sanding with grain 400 / 600.

High gloss:

- Apply two wet-on-wet top coats of 120 - 200 g/m² PUR Brilliant lacquer DU 449 (20 - 30 minutes intermediate drying)
mixing ratio (by volume) 2 : 1 with PU Hardener DR 404
20 - 30 % PU Thinner DV 4935 (winter) or DV 4981 (summer). depending on the lacquer/hardener mixture
- Dry for 72 - 96 hours
- or optionally
apply two wet-on-wet top coats of 90 - 120 g/m² FANTASTIC-BRILLANT DU 48799 (20 - 40 minutes intermediate drying)
mixing ratio (by volume) 4 : 1 with PU Thinner DR 4071
20 - 30 % PU Thinner DV 4935, depending on the lacquer/hardener mixture
- Dry for at least 48 hours

Sanding and polishing

- Graduated wet-sanding with grain 1000 / 1500
- Buffing and polishing (see special technical information on sanding and polishing)



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Application method on light woods:

Pre-treating the wood:

- Graduated bare wood sanding at 150 / 180 grit

Isolating:

- 2 x 120 - 200 g/m² wet-in-wet priming (20 minutes intermediate drying) using PU Isolating primer DG 572-1 + addition of 4 % SUN-EX ZD 9501
Mixing ratio (by volume) 2 : 1 with PU Hardener DR 440
+ potentially 5 – 10 % PU Thinner DV 4994, depending on the lacquer/hardener mixture
- Dry for at least 2 hours / 320 grit sanding

Priming:

- 3 x 150 - 200 g/m² wet-in-wet priming (30 minutes intermediate drying) using PU Basecoat DG 468-3 + addition of 4 % SUN-EX ZD 9501
Mixing ratio (by volume) 1 : 3 with PU Hardener DR 438
20 - 30 % PU Thinner DV 4935 (winter) or DV 4981 (summer), depending on the lacquer/hardener mixture
- Dry for 16 - 20 hours / 320 grit sanding
- 3 x 150 - 200 g/m² wet-in-wet priming (30 minutes intermediate drying) using PU Basecoat DG 468-3 + addition of 4 % SUN-EX ZD 9501
Mixing ratio (by volume) 1 : 3 with PU Hardener DR 438
20 - 30 % PU Thinner DV 4935 (winter) or DV 4981 (summer), depending on the lacquer/hardener mixture

Hint:

The number of basecoats and the application quantities should be based on your quality aspiration and the type of wood being used.

The more porous the wood, the more basecoats should be applied. It is possible to apply up to 12 coats each at 150 - 200 g/m²; whereby up to 6 coats can be applied wet-in-wet per day. Subsequent intermediate drying for at least 16 hours is then required, followed by 320 grit sanding. The final basecoat should appear completely smooth even before the final sanding process!

Drying after the last basecoat: 48 hours, graduated sanding at 400 / 600 grit.

High gloss:

- 2 x 120 - 200 g/m² wet-in-wet finishing (20 - 30 minutes intermediate drying) using PU Brilliant lacquer DU 449 + addition of 4 % SUN-EX ZD 9501
Mixing ratio (by volume) 2 : 1 with PU Hardener DR 404
20 - 30 % PU Thinner DV 4935 (winter) or DV 4981 (summer), depending on the lacquer/hardener mixture
- Dry for 72 - 96 hours
- Or alternatively even
2 x 90 - 120 g/m² wet-in-wet finishing (20 - 40 minutes intermediate drying) using



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FANTASTIC- BRILLANT DU 48799 + addition of 4 % SUN-EX ZD 9501

Mixing ratio (by volume) 4 : 1 with PU Hardener DR 4071

20 - 30 % PU Thinner DV 4935, depending on the lacquer/hardener mixture

- Dry for at least 48 hours

Sanding and polishing:

- Graduated wet-sanding at 1000 / 1500 grit
- Buffing and polishing (see special technical information on sanding and polishing)

Special instructions:

- The addition of Sunscreen concentrate SUN-EX ZD 9501 does not guarantee 100-percent colour tone stability and can result in unattractive colour tones on some dark woods (e.g. in the case of natural veneers). Users themselves should verify the result! Our Innovation Center can on request apply an imitation coating to a sample panel that you provide. You can then give final approval to the planned coating after exposure. Please contact your local sales representative to discuss this further.
- The result is dependent on the substrate material, the time factor and the application devices and sanding equipment used.
- Please apply a test coat under real conditions.
- Please also observe the technical information and safety data sheets for the individual products.
- Please contact your local Hesse sales representative as necessary, our Technical Hotline is available via +49 (0)2381 963 846 or service@hesse-lignal.de.

Note:

This information is for advice and is based on the best knowledge available and careful research in line with the current state of the art. This information cannot be held as legally binding. We also refer you to our terms and conditions of business.

The Material Safety Data Sheet according to the regulation (EC) No. 1907/2006 is available.